WHAT IS CLAIMED IS:

1. A method of manufacturing an electroluminescence display device comprising: forming a first and a second semiconductor layers over a substrate;

forming a gate insulating film over the first and the second semiconductor layers;

forming gate electrodes over the first and the second semiconductor layers with the gate insulating film interposed therebetween;

introducing a first impurity element into portions of the first and the second semiconductor layers so as to form first impurity regions;

introducing a second impurity element into portions of the first and the second semiconductor layers so as to form second impurity regions in contact with the first impurity regions; and

introducing a third impurity element into portions of the first semiconductor layer so as to form third impurity regions in contact with the second impurity regions.